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OF THE STATE OF CALIFORNIA**

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**COMMENTS OF THE NATURAL RESOURCES DEFENSE COUNCIL (NRDC)
ON WATER-EMBEDDED ENERGY SAVINGS PILOT APPLICATIONS**

July 18, 2007

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**COMMENTS OF THE NATURAL RESOURCES DEFENSE COUNCIL (NRDC)
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I. Introduction

The Natural Resources Defense Council ("NRDC") respectfully submits these opening comments in accordance with the "Assigned Commissioner's Ruling and Scoping Memo" ("ACR"), dated April 23, 2007, Administrative Law Judge Weissman's May 25, 2007 email revising the schedule for the proceeding, and pursuant to Rules 1.9 and 1.10 of the California Public Utilities Commission's (CPUC or Commission) Rules of Practice and Procedure. NRDC is a non-profit membership organization with a long-standing interest in minimizing the societal costs of the reliable energy and water services that a healthy California economy needs. In this proceeding, we focus on representing our

more than 124,000 California members' interest in receiving affordable energy and water services and reducing the environmental impacts of California's energy and water consumption.

On July 11, 2007, Pacific Gas and Electric, Southern California Edison, San Diego Gas and Electric Company, and Southern California Gas Company (collectively, the "utilities"), filed additional supplemental testimony for their applications for water-embedded energy savings pilots, following a meeting with interested parties held on June 27, 2007. Our comments concerning the utilities' proposed pilot projects, the cost-effectiveness calculator, and related matters are summarized as follows:

1. Moving ahead expeditiously with the utility proposals is consistent with the state's overall energy strategy.
2. Ultimately, cost-effectiveness testing should account for all energy savings, regardless of where those savings occur.
3. The Commission should not require formal cost-effectiveness evaluation of pilot efforts.
4. The utilities' proposals are generally ripe for approval.
5. The utilities' proposed pilot questions and answers provide a strong basis for guiding the pilot programs and should be used for this purpose.
6. The Water-Energy Study proposed jointly by the utilities should be approved and allowed to go forward even if there are delays in approving any of the individual pilot projects.

II. Moving Ahead Expeditiously with the Utility Proposals is Consistent with the State's Overall Energy Strategy

NRDC expresses its strong support for the Commission's decision to focus explicitly on the energy efficiency potential associated with improving water use efficiency. As the Commission itself has noted,¹ its decision to focus on this largely-neglected source of energy savings carries considerable urgency, given the state's and the Commission's appropriately ambitious greenhouse gas ("GHG") reduction targets. It is clear that business-as-usual approaches will not go far enough to meet the state's GHG reduction targets; new, innovative programs, policies, and approaches are needed. This proceeding is an important example of the kinds of groundbreaking efforts that are sorely needed if California is to succeed in its GHG reduction efforts. Since water use directly or indirectly is responsible for upwards of 19% of all electricity use and 32% of all natural gas use in the state,² and given the heretofore dearth of emphasis on the water/energy-efficiency connection, it is clear that this proceeding is an important strategic component of the state's overall GHG reduction efforts.

There has been some concern expressed in this proceeding that the Commission should wait for the state to take the lead on water-embedded energy savings initiatives. NRDC respectfully disagrees. This Commission has repeatedly shown its willingness and ability to exert leadership in matters of energy policy, often choosing to act ahead of others, but always with an eye to how its early actions can lay the foundation for and ultimately integrate with broader efforts. The jurisdictional complexity inherent in tapping the full range and depth of water-embedded energy savings by itself should not

¹ See April 23, 2007 ACR at 3 and 6.

² California Energy Commission, *Integrated Energy Policy Report*, November 2005, CEC-100-2005-07-CMF, p. 150.

stop an individual agency from exerting leadership in this arena. In matters as important and urgent as reducing GHG emissions such leadership is sorely needed. The Commission's direction to the utilities to develop partnerships with water agencies, and the utilities' successful actions in this regard demonstrate the Commission's appreciation of the jurisdictional challenges ahead as well as providing promising signs of the viability of such partnerships. NRDC is confident that the Commission has exerted its leadership in this arena fully recognizing that a full-scale, statewide effort to tap all achievable cost-effective water-embedded energy savings will ultimately require coordination among multiple stakeholders in multiple jurisdictions.

NRDC is confident that the Commission embarked on this proceeding in full recognition of the fact that new ground will need to be broken if this effort is to achieve broad and sustained success. Such success requires that, ultimately, but not necessarily within the time frame of the pilot programs, the achievable potential for cost-effective water-energy savings is rigorously quantified; that programs, policies and rules are developed that provide the foundation for realizing this potential; and that the utilities, their partners, and the stakeholders in this proceeding work diligently and collaboratively to realize this potential. The pilot programs need to reflect these broader goals.

III. Ultimately, Cost-Effectiveness Testing Should Account for All Energy Savings, Regardless of Where Those Savings Occur

Tapping all achievable, cost-effective energy savings associated with improving water use efficiency and implementing alternative water management strategies necessitates conceiving of programs that go beyond utility service area boundaries and

devising cost-effectiveness tests that consider the full range of energy savings associated with water-energy-efficiency measures. Given that energy savings in this case will be achieved by focusing directly on water systems and only indirectly on energy, and given the inherently multi-jurisdictional nature of the efforts needed to tap all worthwhile water-related savings, the “total resource cost test” that has appropriately been at the heart of the Commission’s energy efficiency policies for more than two decades may need to find application for water-embedded energy in ways that are different from most pre-existing energy efficiency programs. NRDC urges the Commission, along with the utilities and the parties to this proceeding, to be willing to devise new policies and analytic methods where they may be needed in order to fully capture this important area of energy savings.

At a minimum, devising a total resource cost test for energy-embedded water savings means accounting for *all* of the energy savings associated with a particular water management alternative, not just those energy savings that are within a particular energy utility’s service area. In its current form, the Energy Division’s cost effectiveness calculator being used for the water-energy pilots does not yet have the ability to reflect these attributes.

At this point, much of the data and insight needed to inform the further development of the calculator is promised by the overall slate of activities contained in the utilities’ proposals. Thus, a mature form of the calculator is a proper *product* of this proceeding; it is not a tool in hand currently. Given that water-embedded energy savings is a relatively new focus in the field of energy efficiency, this is entirely appropriate. There is a wealth of data that need to be collected and a wealth of understanding that

needs to be developed in order to understand both the systemic relationships between water and energy use and how these relationships vary depending on existing and future water sources, water conveyance methods, and water use patterns; how benefits and costs vary by measure and geographic area; and how benefits and costs are allocated across various jurisdictional boundaries and ratepayers.

For this reason, as important as it is for utilities to begin as soon as practicable with their individual pilot projects, it is arguably even more important for them to get started on the broader Water-Energy Study that is articulated in their applications and testimony and in the attachment to the Commission's April 23 ACR. This study promises to illuminate many important areas that will enable full-scale programs to achieve their full potential. And while neither the pilot projects nor the water-energy study should be unduly held back for reasons of fine tuning, NRDC believes that it is particularly important that the Water-Energy Study commence just as soon as practicable.

IV. The Commission Should Not Require Formal Cost Effectiveness Evaluation of Pilot Efforts;

NRDC generally concurs with the cautionary observations contained in the utilities' testimony regarding the use of the current cost-effectiveness calculator for evaluating the individual pilot projects. It is vitally important that the use of cost-effectiveness testing at this very early stage in the development of embedded energy efficiency water programs not significantly compromise the exploration and foundational learning that is properly central to this pilot stage of the process, especially when the

available tool for doing such testing, as noted above, is not yet sufficiently comprehensive in its consideration of benefits and costs.

Since pilot projects generally contain costs that decrease or even disappear when offered at larger scales, NRDC would be concerned about using the current calculator even if were already fully developed for the purpose of measuring energy savings from water efficiency and water management measures and programs. However, since the calculator is only now in development, with key issues regarding which benefits and costs to include and how to measure them yet to be resolved,³ there is absolutely no assurance that using the current form of the calculator to vet pilot proposals will yield even approximately correct results even *after* accounting for inherent differences between pilot projects and full-scale programs. It is entirely conceivable, due to the range of policy and measurement issues yet to be decided, that the calculator in its current form and using currently available information would not even produce an accurate ordering of *relative* cost effectiveness of a series of measures. NRDC therefore recommends that the Commission not use the calculator as a primary means of vetting the pilot projects but that it be used only to gain one of multiple perspectives regarding their relative attractiveness and fit. NRDC believes that other information required by the Commission and provided by the utilities is sufficient for this purpose.

Further, as noted in the previous section, NRDC recommends that efforts to further develop the calculator be used for the purpose of evaluating future full-scale programs, not the current pilot project proposals. NRDC does not believe that the modest amounts of money under consideration in this proceeding warrant rigorous cost

³ The utilities' proposals indicate that the further development of the calculator will be a product of the Water-Energy Plan component of the overall pilot activities; this work is not expected to be complete until the end of 2008.

effectiveness testing of the pilot projects. NRDC believes this is why in its April 23 ACR the Commission referred to evaluating the *relative cost efficiencies* of the various potential pilot projects as opposed to formal, dispositive cost effectiveness testing.

V. The Utilities' Proposals Are Generally Ripe for Approval

As the Commission has noted,⁴ there are competing factors at work in the utilities' efforts to fashion proposals that will gain Commission approval. There is both a sense of urgency and a need to get enough right in the program design so that these programs significantly advance the long-term cause of achieving water-embedded energy savings. The Commission has properly stressed the need for and importance of energy utilities developing strong relationships with water agencies whose expertise, resources, and cooperation are crucial to the success not only of the pilots but of the greater efforts needed for subsequent broad-scale programs. The Commission has also directed that the utilities continue to focus on low-income communities in the quest tap the full achievable cost-effective potential for water-embedded energy savings.

The Commission has recognized that the utilities have not been provided with ideal clarity as to how these competing factors should be balanced and has appealed to the utilities and parties to work together to fashion sensible, workable projects and studies that reasonably achieve such a balance.⁵ With the most recent filing of the utilities' supplemental testimony on July 11, 2007 and the preceding meeting during which a strong convergence of positions was achieved among the parties, NRDC believes that a reasonable balance has been struck. The utilities have been responsive to parties'

⁴ Prehearing Conference transcript at 3.

⁵ Id.

concerns about what issues deserve greatest focus in the selection and scaling of pilot projects as well as on the need to add certain studies to the overall Water-Energy Study. In response to parties' concerns about relative emphasis between customer sectors and relative cost efficiency, individual projects have been scaled down or up relative to the utilities' earlier filings, new projects have been proposed, there is at least one significant new proposed partnership, and new components have been added to the utilities' joint Water-Energy Study. In NRDC's view, the tenor of the June 27 meeting of the utilities and several parties, which included NRDC, was that the utilities had in fact substantially addressed and resolved the main concerns of the parties, and that the resulting July 11 supplemental testimony reflects this convergence.

The utilities, parties, and Energy Division staff have done much good work in a relatively short period. The urgency and importance attached to these pilot efforts, along with the fact that this proceeding has gone more slowly than originally anticipated, suggests that acting on the utilities' proposals should not suffer significant additional delays unless absolutely necessary.

At the same time, approving the pilot proposals now need not mean that the parties and the Commission cannot and should not continue to influence the implementation of the utilities' proposals. The Water-Energy Study component of the utilities' proposals, which NRDC believes may be the most important overall aspect of the proposals, would require the oversight and approval of a Blue Ribbon Panel.⁶ Such oversight and approval authority would provide opportunities for Panel members to contribute on an ongoing basis to the Study. Given the linkages built in between the pilot

⁶ April 23 ACR Attachment, p. 3.

projects and the Study, Panel members should also be able to inform, at least indirectly, the ongoing development of the pilot projects. In order to make this happen, the Commission would have to direct the utilities to permit interested parties and the Energy Division to sit on the Blue Ribbon Panel. NRDC strongly recommends that the Commission do so.

VI. The Utilities' Proposed Pilot Questions and Answers Provide a Strong Basis for Guiding the Pilot Programs and Should be Used for this Purpose

The April 23 ACR asked that parties provide feedback on the set of questions and answers ("Q&A set") developed by the utilities that could be used to guide the actual pilot program process.⁷ NRDC finds the utilities' Q&A set to be carefully and thoughtfully crafted, and sufficiently comprehensive. This document also contains the best mapping of how the individual components of the Water-Energy Study should benefit from as well as inform the individual pilot projects.

Under the review and guidance of the Blue Ribbon Panel, this initial Q&A set undoubtedly will evolve, and grow in level of detail and sophistication, but as an initial overarching guide NRDC believes that it does a good job of providing the necessary scope and perspective from which the detailed aspects of both the Water-Energy Study and of the individual pilot projects can be developed and implemented.

The April 23 ACR also asked parties to comment on whether the utilities should be obligated to "adequately address" the questions in the Q&A set.⁸ NRDC believes that creating such an obligation, with one modification, would be extremely helpful in terms

⁷ These questions and answers are contained in the attachment to the April 23 ACR.

⁸ April 23 ACR at 18.

of keeping the utilities' efforts and activities focused and effective. NRDC's only suggested modification is that the utilities' obligation should be to adequately address the final form of the Q&A set as it may be influenced by the Blue Ribbon Panel, and not necessarily in its current form. This will allow for improvements and refinements in the Q&A set to be reflected in the utilities' obligations.

VII. The Water-Energy Study Proposed Jointly by the Utilities Should be Approved and Allowed to Go Forward Even if There Should be Delays in Approving Any of the Individual Pilot Projects.

NRDC believes that the utilities' joint-proposed Water-Energy Study is perhaps the strongest overall aspect of the utilities' proposals. The utilities' Q&A set makes evident that data gathering and improved understanding outside the context of the individual pilot projects is crucial to answering the fundamental questions posed by the Commission in this proceeding, which is whether, to what extent, and how should water/energy efficiency programs be designed and implemented. A review of the proposed Water-Energy Study reveals that much of the information and understanding needed to answer these questions is likely to come from efforts made outside the pilots. As NRDC noted during the January 30, 2007 prehearing conference in this proceeding, the limited selection of pilot projects that are generally feasible in a pilot context means that collection of pilots are unlikely to cover the full range of potential beneficial full-scale programs.⁹ NRDC believes that it is highly likely that the insights gained from the Water-Energy Study will result in new ideas for additional measures and programs being

⁹ Prehearing transcript at 93.

identified for full-scale implementation. One addition that NRDC would like to see is for the Study to assess the greenhouse gas emission reduction potential of different water management alternatives, including water efficiency, recycling, and other alternatives.

Therefore, in the interest of moving ahead as soon as possible with this proceeding's activities it would be advisable for the Commission not to tie the commencement of the Water-Energy Study to the initiation of any of the individual pilot projects but to let the Study go forward as soon as the Commission deems it approved. Moreover, as noted in the preceding section, assuming the Commission approves the Study's Blue Ribbon Panel oversight and approval structure proposed by the utilities, the Study need not be "letter perfect" before being approved since the Panel, which presumably would include a representative from the Energy Division, would have the ability and authority to influence its development to a significant degree.

VIII. Conclusion

NRDC commends the Commission for initiating this proceeding and inviting the utilities' applications for pilot efforts to begin focusing explicitly on the energy savings potential associated with increased water-use efficiency. NRDC urges the Commission to approve the utilities' water-embedded energy pilot applications and looks forward to working with the Commission, the utilities, and all parties to ensure that California continues its strong history of developing innovative and comprehensive energy efficiency programs.

Dated: July 18, 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Audrey Chang". The signature is fluid and cursive, with the first name "Audrey" written in a larger, more prominent script than the last name "Chang".

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the **“Comments of the Natural Resources Defense Council (NRDC) on Water-Embedded Energy Savings Pilot Applications” in the matter of A. 07-01-024 et al.** to all known parties of record in this proceeding by delivering a copy via email or by mailing a copy properly addressed with first class postage prepaid.

Executed on July 18, 2007 at San Francisco, California.



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